W5YI

National Volunteer Examiner Coordinator

REPORT

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CANADA READIES AMATEUR RADIO RESTRUCTURING

You are probably aware that Canada will be completely restructuring their amateur service. Much has been written on the subject and we wanted to be certain that we had the correct information. We recently had a rather lengthy and interesting *informal* conversation with ***James P. Cummings,*** the *Authorization Policies and Procedures Development Officer* for Canada's *Department of Communications* in Ottawa. Jim is also **VE3JPC,** an active amateur for about 15 years, particularly in the digital modes.

W5YI: Tell us how the Canadian amateur restructuring movement got started.

VE3JPC: About 1978 or 1979 we were getting two types of complaints from the public. One was saying why are you still requiring Morse code ...and secondly, 'Why are your examinations so tough?' We have had the Digital [no-code] Certificate since 1979 and it has been a dismal failure.

W5YI: How did you actually come up with the no-code plan?

VE3JPC: The whole scheme was actually dreamed up by us in 1982. We were getting a lot of complaints about how hard the exam was. It was too much like an engineering exam. We said are we going to fix this ...or are we going to tough it out? We decided let's fix it.

Myself and our director came up with a new concept. Unbeknown to us, the Director-General and a couple of other guys were thinking the same way. When the two forces came together we said, 'We have a new idea about amateur radio ...and the other group said so do we. The lower group, ourselves, said this is what our thought is. The Director General said, 'Yeah, I've been thinking the same way.'

W5YI: Then what did you do?

VE3JPC: Frankly, it took us a long time to get the *Discussion Paper* (similar to our FCC's *Notice of Proposed Rulemaking)* out. It took three years ...mainly because there was a certain amount of institutional reticence. In November 1985 we released the *Discussion Paper on a Possible Restructuring of the Amateur Radio Service in Canada.*

W5YI: How was the proposal received by Canadian amateurs?

VE3JPC: We let it go on comment for six months. We got almost 600 responses. In the main the amateurs were for it. There was about one quarter who were dead set against it. Not quite a quarter were in favor of it 'as is.' We had about 8% that we couldn't figure out what they were saying ...they expressed no opinion whatsoever.

The rest ...about 50%, said 'We like it, but we want some changes.' When you got right down to it, it looked like what they wanted was much easier access to the amateur bands.

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W5YI: What was your response?

VE3JPC: We got all this together and this is what we are coming out with. We are coming out with a new Amateur Operators Certificate. It is one piece of paper. You can write exams for up to four qualifications.

W5YI: There are two theory and two code exams, right?

VE3JPC: Well, yes and no. You are correct on the two codes. One is 5 words-per-minute, the other 12. Our position on the code is that once this is implemented the only time where there will be a Morse code requirement is when operation is below 30 MHz because of the international regulations. There was a movement afoot by Canada to drop the Morse code, but as you know it was not dropped at the last General WARC in 1979. I think Canada supported it. I think that anyone looking at the international scene will agree that eventually Morse code will go by the wayside. Look at the Maritime Mobile Service. It would then be difficult to justify keeping it for amateurs. We can certainly foresee in the future that amateur certification will not require knowledge of Morse code.

The foundation of these [four] qualifications is what we are calling the basic qualification. This will be questions on very basic electronics, Ohms Law, maybe a little bit on resonance. We are looking at block diagrams ...looking at operating procedures ...how you actually operate an amateur radio ...what do all the various knobs on the radio mean. How do you adjust your phone for proper ALC level? What is a noise blanker for? What's an attenuator for? Regulations, interference ...and how to solve interference. Audio rectification, what is it. What is front-end overload? ...fostering the idea of cooperation with your neighbors... Nothing infuriates a non-ham more than when your next door neighbor has this big antenna up and says "It's your problem." About 95% of the problems amateurs come up with usually can be quite easily solved. A lot of it is attitude.

W5YI: Who wrote the questions?

VE3JPC: We are getting the amateur organizations themselves to write the questions. [Canadian Amateur Radio Federation and Canadian Radio Relay League] We gave them our old examination bank and they have done some dividing up. With the Basic Certificate a person can operate with up to 250 watts input on all frequencies above 30 MHz, all modes, all emissions. We will be doing away with all amateur subbands. We hope to have that done soon ...it will come before the restructuring. It is in the legal mill now to become a regulation.

W5YI: Why are you outlawing home brew transmitters for all but the top class?

VE3JPC: For six years I wrote regulations. So I look at these things with a completely different light than a lot of people. My attitude was, it is a great idea, but how do you enforce it. Our amateurs here are probably the best behaved lot going. We rarely ever have a problem with amateurs. We have a different culture here as far as authority is concerned. I don't think anyone is going to push that one. It is not worth their while to go out and try to home brew their rigs anyway. No one makes a VHF radio today.

W5YI: Who will be permitted to build rigs?

VE3JPC: If someone is capable of building a radio, he certainly is very cabable of writing for the Advanced [theory/regulation] qualification which permits home brewing. If building is what they want, then we have an exam for it, the Advanced qualification. It is strictly a technical exam. In these four qualifications, any individual can write any examination in any order. However, in order to get a license, another piece of paper, he has to have that Basic. If an applicant writes the Advanced first, we will give him a Certificate but it doesn't mean anything until he gets that Basic.

W5YI: What is the difference between licenses and certificates in Canada?

VE3JPC: The amateur radio operator's certificate is an examination process. It says you are qualified to do something. Once you have a certificate with Basic qualifications you are qualified to apply for a license. A certificate qualifies you as an operator for someone else's station. The license allows you to set up your own. The certificate is the operator qualification, the license is the equipment qualification. They are two separate pieces of paper. Once a certificate is issued,

"I am a currently licensed Extra Class amateur radio operator and wish to be a volunteer examiner. I have never had my station or operator license revoked or suspended., I do not own a significant

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it is good for life. A license is good for one year and the fee is $22.00. Amateurs are users of the spectrum and your govern-ment does devote some resources. If the ama-teurs had been paying their way, maybe they would be getting more activity out of the FCC. Our attitude is that you have to pay some of the freight. As it stands right now, the amateurs are renewing every year. In comparison to other countries, $22.00 is a little on the low side.

W5YI: When are you going to put the new amateur lineup into effect?

VE3JPC: October first, 1990. The paperwork is usually published in the *Canada Gazette, Part 2.* There are three documents published by the Canadian government. *Canada Gazette Part 1, Canada Gazette Part 2* and *Canada Gazette Part 3.* Part 1 deals with a mish-mash of notices and intended laws. All amateur restructuring was first published in *Canada Gazette Part 1.* Actually, we are still working on the regulations. Doing them up here is quite a bit different than doing it down your way. We write and present new requlations but they require the approval of the government. A special cabinet committee reviews them. We will have the new regulations promulgated by October first.

The questions have been received from the two Canadian amateur organizations ...I still have to sit down and write the regulation exam questions. We will also review the questions to determine if we want to add some ...such as on packet radio, satellites and so forth. For example, you want to contact your friend by AX.25, what would be the command you would type in - and give them four choices.

All tests are multiple choice ...pass mark is 60%. 100% on the Morse code for three minutes. If an individual makes up to five errors, he is considered to have passed with 100%.

W5YI: When will the new class be effective?

VE3JPC: We are constantly talking with the amateur organizations and we hope to have the whole examination structure and the certificates ready for examination by October first. Let's look at practicalities. Everybody knows this is coming, but I don't expect many examinations to be written, however, until about February or March [1991]. We are implementing a new program. Our District Managers will have the authority to appoint, for example, club presidents to serve as a contact point. We have forty-six district offices here in Canada and we are recommending to them to look at either amateur radio clubs or schools for a contact person who will be responsible for the exam program through the DOC. He can either do the exams himself ...or appoint others to administer the tests.

We are leaving control of the amateur exam process with the district office. They know best what is going on in their field area. If there is an area where there are few amateurs or no organized club, then the district manager will be allowed appoint an individual for that particular area to do examinations. We don't have the person-years we had, however we will still administer examinations upon request. In fact, in some district offices that will be the only way it will be done.

The real no-code license, similar to the Type 'B' license in Britain, starts in October. You can use any mode you want. If you want to practice on-air CW with a bunch of buddies on 2-meters, then you go ahead. In fact, we would encourage it.

W5YI: How is reciprocal licensing going to be handled?

VE3JPC: We have rewritten the regulations a little bit on that. Basically what we are going to say is that if you have a no-code license you will be allowed to operate up here as if you had our Basic and Advanced qualification. You will be allowed to use all privileges up to 1,000 watts, bring in home-brew equipment with which to operate ...but not on the HF bands.

If you have an amateur license and 5 wpm code knowledge you will be able to operate all modes above 30 MHz, radiotelegraphy below 30 MHz and all modes on the 160 and 80 meter band. If you have at least 12 words per minute [code proficiency], the world is your oyster ...have fun.

We took a look at this. A lot of privileges depends upon the code speed. It doesn't matter whether it is an American General, German Class 'A', British Class 'B' or the Dutch Class 'D.' All these privileges, crazily enough, revolves around Morse code.

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W5YI: Will Canada be requiring any kind of a formal training program?

VE3JPC: No, if an applicant wishes to do it on his own, more power to him. We worked in conjunction with the amateur organizations in developing the questions, now they should be in the process of developing the syllabus as well as any training programs. We are not allowed by law to get involved in this area. Our mandate under the *Radio Communications Act* is one strictly of spectrum management.

The top person in our organization is a minister, Mr. Marcel Masse, an elected member of parliament. The top civil service person in the DOC is called the Deputy minister. The ultimate authority in Canadian amateur affairs lies with the Director-General.

W5YI: Your current No-code license, the Digital Certificate, has an essay format. The new questions will all be multiple choice?

VE3JPC: Yes, but I want to make one thing clear. I believe our present amateur theory and regs and the advanced theory and regs are multiple choice, only the [no-code] digital portion is a [essay type] written examination. The reason for this is that no one has developed a question bank for the digital so you have to answer the questions in long-hand. The whole digital program was a disaster.

Right now what we have are three (operator) certificates. Two are entry level and one is a finishing level. The two entry levels are the amateur operators certificate and the amateur [no-code] digital operator's certificate. The amateur one is the traditional entry level. Requirement is 10 words per minute plus regulations and theory. We do not have a Novice license.

The top level is the radio amateur's advanced certificate at 15 words per minute plus advanced theory. We are dropping the top code speed to 12 words-per-minute.

Those who hold (10 wpm) amateur and (15 wpm) advanced amateur will operate as if they held the 12 wpm and advanced (written) qualification. They would have everything. The big winners in this one are the amateur operators since they get full privileges. They will now be able to operate phone below 30 MHz. When it comes to our new licensing, we really only have one class of certificate and that is the amateur class which can be written for up to four qualifications. We will administer any examination that the candidate wishes.

W5YI: You have seen the FCC no-code proposal. What do you think?

VE3JPC: The requirement to take a code test to obtain VHF operating authority certainly flies in the face of international trends. My own opinion is that you want to get those guys [on 6 and 2 meters] because it is that population when things get tight that gets you up in the higher bands.

Here you read in *73* and *QST* all this moaning about losing frequencies left and right. We have nobody to blame but ourselves. We're so satisfied to sit on two meters that we are going to lose the rest. If you get newcomers in there then you are going to force people to take a look at 1.2 gigs.

FCC CELEBRATES WWII RADIO HISTORY

The FCC rarely holds ceremonies to celebrate historical events, but April 27, 1990 will be an exception. FCC Chairman Al Sikes will host a ceremony honoring the Radio Intelligence Division (RID) of WWII and its founder, former Commissioner George Sterling.

As an FCC employee in the 1930s, Sterling saw the threat to U.S. interests that was surfacing in Europe and worked to obtain funding for the RID which began operating in 1940. Sterling and his RID team, many of whom will be attending the ceremony, oversaw a network of more than 100 monitoring stations capable of detecting locations of ships and airplanes throughout the world and of monitoring transmissions from them.

The network tracked enemy forces and intercepted their messages. It also tracked disabled U.S. ships and planes and helped rescue operations. The information that the group gathered was passed on daily to Naval Intelligence.

The RID also investigated cases of subversive uses of radio within U.S. borders. In its first two years, it investigated 2,583 such cases acting on complaints from the FBI, the War and Navy

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Departments, local law enforcement agencies and the general public. For example, acting together with the FBI, RID broke a German spy ring operating in New York City. The spies notified the German government about the departure of ships from the port of New York.

After the close of the War the RID was disbanded. Many of its personnel went on to work at the National Security Agency in Fort Meade, Maryland. Long known as one of the federal government's most secret agencies, the NSA is responsible for monitoring national and international telephone, radio, data and satellite traffic and for ensuring the security of government cryptographic operations.

Other RID veterans joined the Foreign Broadcast Intelligence Service (now called the Foreign Broadcast Information Service), a CIA bureau that monitors international HF broadcasts and publishes briefings based on their content.

George Sterling stayed at the FCC and became chief of the Field Engineering and Monitoring Bureau and eventually an FCC Commissioner. He was the first FCC career employee ever named to a Commissioner post. He retired from the FCC in 1954.

The RID's legacy lives on in the FCC's Field Operations Bureau, which uses a technique known as "fingerprinting" to identify interfering or illegal stations. RID developed the early version of this method, which involves detailed analysis of unique transmitter spectral characteristics.

FCC BUSTS PIRATE RADIO STATIONS

The FCC's Field Operations Bureau is continuing its stepped-up campaign of enforcement, as directed by Chairman Al Sikes shortly after he assumed office.

The FCC fined a Norfolk, Va. company $10,000 for operating WIMG-AM (Trenton N.J.) without a valid license. Crusade Broadcasting Corp. was notified twice in 1989 that its license had expired, yet it continued to operate WIMG on 1300 kHz until February 5, 1990. The station had a long list of violations dating back to 1983.

Responding to complaints from the Brunswick Police Department, the FCC announced on April 13 it had located an unlicensed transmitter at the home of John S. Kostrub in North Brunswick, N.J. Kostrub was arrested and charged with violating state law by interfering with police radio operations.

On April 1, the FCC fined ***Joseph A. Della Barba/ N3HGB*** $1,000 for radio piracy. Personnel from the FCC's Baltimore and Laurel facilities located the Annapolis, Md. ham operating illegal station "WNTU" from his vehicle. The FCC spotted WNTU ("The Nation's Underground") operating on 25.000 MHz, the standard time and frequency assignment used by WWV and WWVH of the National Institute for Standards and Technology.

On March 14, engineers from the FCC's San Francisco office and the U.S. Marshal's Service seized $3,000 worth of illegal CB equipment from Bob's CB store in Santa Rosa, Calif. The equipment included six transceivers and ten linear amplifiers, which were capable of operating on unauthorized frequencies or power levels.

JAMES BOND: REPORT TO FCC! Do FCC Rules Help the Bad Guys?

The legendary secret agent of fiction might think twice about using his sophisticated electronic gadgets if he had to submit them to FCC inspectors first. Yet, a Washington law firm says lack of FCC approval of secret radio devices is being used against the forces of justice.

Law enforcement agencies sometimes use specialized, one-of-a-kind "body wires", low-power transmitters and other electronic aids to gather evidence. But this high-tech equipment -- which is not marketed to the general public -- is often not submitted to the FCC's Laurel, Maryland labs for testing to determine if it will cause RFI or TVI. Most electronic products are required to have some level of FCC certification before they may be marketed in the U.S. You can examine the FCC ID number on the nameplate attached to the back of the product. (The requirement does not apply to ham transmitters.)

In petition RM-7335, attorneys Dennis Brown and Robert Schwaninger argue that "Defense attorneys are making the claim that a police department's use of non-FCC approved radio equipment for the purpose of gathering evidence results in an illegal search. Based on a showing

that the police violated federal law in the gathering of evidence, recordings of conversations are being excluded by trial courts."

Power, sales limits

The firm wants the FCC to exempt from the rules mobile low-power communication devices sold to law enforcement authorities. The buyer would have to certify that the devices will be used exclusively by law enforcement personnel for investigative purposes. Only ten units per frequency could be sold to an agency in an area, and output power would be limited to 120 mW.

Police are unlikely to use general-purpose equipment for surreptitiously obtaining evidence, the lawyers said. "In particular, the need for radio equipment which an agent can conceal on his body with minimal risk of detection by a dangerous suspect may imply a need for equipment which is small; light; packaged to conform to the body, rather than being in a rectilinear format; powered by batteries not suited to ordinary applications; and which uses an unconventional pickup device and unconventional antenna."

Rules hard on inventors

The current rules also impede innovation, according to the law firm. "The burden of complying with equipment authorization requirements is so heavy on many part-time American inventors as to discourage their potential contributions to the state of the radio art. We will not belabor the Commission's attention by reciting the long list of major radio innovations that were developed in a lone experimenter's basement in an earlier era.

"Under the Commission's current Rules, however, there is little incentive for an individual to spend his spare time attempting to develop unique devices to support law enforcement activities if he cannot expect to be able to raise the thousands of dollars necessary to undertake the required testing costs, legal expenses, and application filing fees to obtain authorization to sell the small number of units which the limited market will demand.

"The resources available to major distributors of controlled substances are widely recognized as great enough to evade ordinary law enforcement efforts and, indeed, great enough to threaten the stability and security of a democratic nation. If law enforcement is to be effective in combatting the drug trade in America, the Commission should facilitate the technical side of law enforcement, rather than the technical side of defense against prosecution."

READY FOR HIGH-DEFINITION RADIO?

You have probably heard about High-Definition TV (HDTV), the new super-sharp wide-picture system that the FCC and industry are scurrying to develop. The American HDTV system is supposed to whup Japanese and European competitors and create thousands of new jobs. The FCC has just announced that HDTV will be broadcast simultaneously with the current NTSC system on separate TV channels. New HDTV transmitters, studio equipment, towers, land and programming are expected to cost TV stations hundreds of millions.

HDTV will operate on existing channels already set aside for television. But the radio equivalent of HDTV -- Digital Audio Broadcasting (DAB) -- demands new spectrum allocations, according to experts presenting the system to broadcasters in Washington and Atlanta last week. The fight for new spectrum for DAB could become intense in both national and international forums.

It is inevitable that radio will be broadcast digitally by the end of this century according to one DAB expert. "We will get into our cars and turn on a radio that has AM and FM bands, and also a digital band. Ten years after that, AM and FM will disappear entirely," he said.

CD-quality on radio

Engineers have been trying for years to overcome problems in the existing, analog radio broadcast system: AM's limited fidelity and skywave interference and FM's susceptibility to multipath (fading caused by interaction of reflected signals). Now, a consortium of British, French, Dutch and German governments and manufacturers have come up with a DAB technology that they believe will set the world on its ear. They will invest $47 million to complete the design.

Instead of AM or FM they will use COFDM, which stands for Coded Orthogonal Frequency Division

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Multiplex. This exotic modulation scheme -- totally unlike anything now used in the U.S. -- takes a stream of digitized data (voice, music and computer data) and divides it up into time slots. These time slots are then used to modulate several narrowband carriers.

Subsequent data travels on distant carriers and non-successive time slots. The point is to lower the data rate per carrier so that fades do not hurt the signal. In fact, the COFDM receiver is able to constructively use these disturbances. Fades and reflections actually add to total received power! The system will transmit up to 16 channels in Compact Disk quality stereo in 4 MHz of bandwidth.

Another strange quality is that multiple transmitters can operate on the same frequency in the same time in the same area without interference. Again, these numerous signals all add in the receiver to produce better reception. This even applies to satellites. DAB advocates predict that broadcasting satellites will transmit to consumer radios on the same frequency that local stations and fill-in repeaters use. COFDM also allows much lower power levels. Stations may only run a few watts and fill-in transmitters will run around 0.25 W.

Regulation and spectrum

When a DAB system is constructed, all stations will have to be pre-planned. There will be no way to add new stations later. All stations may be broadcast from a single antenna, a cellular network of antennas or a combination of satellites and ground stations. The FCC will have its hands full figuring out how to grant licenses under such conditions. We think the FCC will say it has little alternative than to auction the licenses to the highest bidder.

DAB could be broadcast on the VHF spectrum at 88-108 MHz now used by FM. But existing stations would have to go off the air. Also, this frequency range is inappropriate for satellites. So, DAB proponents -- including apparently the Soviet Union as well as Europe and Japan -- are arguing hard for new spectrum allocations in the 1-2 GHz range for their system.

The U.S. so far does not have an official position on whether to seek allocations for DAB. America may have to move quickly, though -- Canada is well into its DAB research program, and will be drumming up public support for the service at demonstrations around the country this summer. If Canada broadcasts DAB from satellites, the programs will be receivable in the U.S.

UNIDEN TO PROVIDE SCHOOLS WITH FREE AMATEUR RADIO STATIONS

The Uniden Corporation of America, famous manufacturer of consumer electronic products, has offered to make a quantity of their Model HR-2510 available to schools. This is the first time any manufacturer has made a commitment of this magnitude to improving education via Amateur Radio.

The station package consists of a Uniden HR-2510 transceiver for the 10 meter band, a ground plane antenna, 100 feet of coaxial cable and a battery charger. With favorable propagation conditions, the HR2510 is capable of world-wide communications. "Uniden recognizes the urgent need to interest students in science and technology," stated Paul Davis, the Executive Vice President of Uniden. "Over the years, the field of science has lost it's attraction as a vocation. Uniden sees this program as a way to use the Amateur Radio hobby to revitalize an interest in mathematics, physics, chemistry and even foreign languages," he added.

The HR-2510 operates between 28.0 and 29.7 MHz, which includes the Novice/Technician voice band between 28.3 and 28.5 MHz. The equipment can be used to communicate with other schools around the country via "nets" such as the "CQ All Schools" activity on 28.303 each Tuesday and Thursday at 12:30 EDT.

Students can listen to conversations on Russian satellites passing overhead and hear FM repeaters in other parts of the country. With a suitable adapter, the Uniden HR-2510 can be used for computer-to-computer communications. It is only slightly larger than a textbook and requires very little space for installation.

Students can also use the "2510" to listen to conversations on Russian satellites passing overhead and hear FM repeaters in other parts of the country. In the evening, when long distance

communication ceases, the HR-2510 can be used to send code practice transmissions to prospective Amateurs. It can also be used for local computer-to-computer communications and distribution of computer information to students.

The *National Amateur Radio Association* (NARA) has been appointed to administer the distribution program. Any school can qualify to receive one of the Uniden Amateur Radio Station packages. The requirements are relatively simple. They are:

1. The school must have a licensed radio Amateur on their staff who is authorized to operate on 10 meters. The radio is donated to the school but must be operated under the supervision of the licensed Amateur. This includes Novice and Technician licensees operating between 28.3 and 28.5 MHz.
2. The school agrees to install and operate the equipment where it is available to be used and observed by the greatest number of students.
3. The school or school district retains ownership of the equipment. If it is no longer used, it must be returned to NARA so that it can be redistributed to another school. The radio cannot be sold or "redonated".

The purpose of this program is to maximize the benefit to educators and the Amateur Radio fraternity. There will be more qualified schools than there are radios. For this reason, NARA has appointed a committee to review the applications and decide which donations will provide the most benefit. The committee consists of educator/Amateur ***Gordon West (WB6NOA)***, ***Carole Perry*** (she's ***WB2MGP)*** and ***Rick Gantman*** (license on the way!). Rick is an instructor at Bellevue High School, NARA's test laboratory for studying educator/Amateur interfacing.

Quoting Gordon West, "It's not the school that will make this work, and it's not the kids, it's the one individual that will take the transceiver and get it on the air." NARA wants to find these key instructors throughout the country who can present Amateur Radio to our young people on a daily basis.

To obtain an application form for one of the Uniden HR-2510 transceivers, contact ***The National Amateur Radio Association,*** 16541 Redmond Way, Suite 232, Redmond, WA 98052, Telephone: (206) 232-2579.

MARCH AMATEUR LICENSING STATS

March	***1987***	***1988***	***1989***	***1990***
New Amateurs	795	2733	2219	2505
Upgrading:				
Novices	373	1636	921	1382
Technicians	116	632	353	513
Generals	138	486	291	393
Advanced	90	384	173	229
Total:	**717**	**3138**	**1738**	**2517**
Renewals:				
Total Renew:	4017	6043	417*	*142
Novices	406	428	60*	* 24
Purged:(*)				
Total Drop:	1282	946	1037*	* 20
Novices	806	577	460*	* 15
Census:				
Indiv. Oper.	***420692***	***434983***	***449412***	***459850***
Change/Year	-95	+14291	+14429	+10438

Indiv. Operators by Class:

Extra	Advan.	General	Tech.	Novice	Total:
March 1987:					
41443	97429	115015	859760	81045	***420692***
9.8%	23.2%	27.3%	20.2%	19.3%	100%
March 1988:					
44617	98505	113900	95256	82705	***434983***
10.3%	22.6%	26.2%	21.9%	19.0%	100%
March 1989:					
475734	99811	114606	105002	82259	***449412***
10.6%	22.2%	25.5%	23.4%	18.3%	100.0%
March 1990:					
49346	100156	114964	112872	82512	**459850**
10.7%	21.8%	25.0%	24.6%	17.9%	100.0%

Club/ RACES & Military	***(1987)***	***(1988)***	***(1989)***	***(1990)***
	2499	2379	2475	2449
Total Active	***423191***	***437362***	***451887***	***462299***
% Increase	-.1%	+3.3%	+3.3%	*+2.3%*

****Adjusted Growth is actually a decrease!****

(*) NOTE: Again we remind you that the U.S. amateur service **is not really expanding at a 2.3% rate.** Due to the implementation of the 10-year term license in 1984, amateurs who would ordinarily be dropping out of the Amateur Radio Service by not renewing will be carried on the amateur rolls for another five years before being purged from the FCC's data base. This has the effect of greatly overstating the amateur census since the records of silent keys and those not renewing will not be deleted for another five years. Growth in the amateur service is actually non-existent.

[Source: FCC, Gettysburg, PA]

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NOVICE AMATEUR RADIO COURSE - Complete with 2 cassette Morse

NATIONWIDE NTRN ON DOCKET 90-55 HELD

The No-Code NTRN ***(National Teleconference Radio Net)*** took place as scheduled on April 8th produced by well known amateur newsman ***Bill Pasternak, WA6ITF. Alan Kaul, W6RCL,*** of the NBC Nightly News and the Today Show acted as the moderator. Nearly 150 repeaters across the country tied into the teleconferencing facilities supplied by ***Lou Appel, K0IUQ,*** and the Darome Connection, Inc. of Minneapolis. Lou and ***John Desmond, K0TG***, acted as the teleconference bridge operators.

Guest panelists included ***Fred Maia*** of the ***W5YI Report,*** noted ham educators ***Gordon West, WB6NOA*** and ***Phil Kemp, KZ1Z, Donald Stoner, W6TNS*** of the *National Amateur Radio Association,* ***Lew McCoy, W1ICP*** of CQ Magazine, Dr. ***John Champa, K8OCL*** of AMSAT-NA, ***Benn Kobb, KC5CW*** of Federal Communications Tech News, and ***Phil Karn, KA9Q*** of Tucson Amateur Packet Radio. ***Jerry G. Gorrel, W0CLR,*** of Belton, Missouri, represented those who felt a no-code license was not in amateur radio's best interest. The *American Radio Relay League* had been asked to participate ...but declined.

The nationwide broadcast was heard by approximately 50,000 amateurs during the two hour discussion on the merits of a code-free entry into U.S. amateur radio. Several listeners got to ask questions which were fielded by the panel. Pre-net programming was produced and hosted by ***Steve Bauer, KC0HF,*** and featured *73 Magazine* publisher ***Wayne Green, W2NSD*** and his views on the topic. It was pretty much agreed that:

(1.) ...the time had come for a code-free entry into American amateur radio,
(2.) ...that the present Novice entry level should also be retained and;
(3.) ...the Communicator Class privileges should include the 6 and 2 meter bands.

● Legendary amateur radio pioneer, ***Edgar F. Johnson,*** will be celebrating his 91st birthday on June 13th. His first amateur call was ***9ALD*** which was issued before the ITU assigned country prefixes! His *Viking* line of ham transmitters are classics! E. F. Johnson lies gravely ill at St. Mary's Hospital in Rochester, Minnesota, and could use some cheering up! ***Bill Knish, WB0KEK*** talked to his two daughters recently who agreed it might help if there was an outpouring of birthday greetings. His address is: Edgar F. Johnson, 111 West Elm Avenue, Waseca, MN 56093. If his condition worsens before his birthday, the greetings will be delivered early. Birthday greetings could be hand written letters, cards - or better yet - on the back of a QSL!

● The *Dayton Amateur Radio Association* has named ARRL Hudson Director ***Stephen Mendelsohn, WA2DHF,*** as its *1990 Radio Amateur of the Year.* Mendelsohn is an engineer for the CBS network.. ***Paul Thompson, Ph.D, KC0VG,*** of Blue Springs, MO, gets the *1990 Special Achievement Award* for his integration of Amateur Radio into the curriculum of Blue Springs Communty College. AMSAT's ***Bob McGwier, N4HY,*** is the winner of the *1990 Technical Achievement Award* for his software development work on the Microsat line of amateur satellites. The awards will be presented at the Dayton HamVention banquet on April 28th where entertainer ***Ronnie Milsap, WB4KCG,*** will be the featured keynote speaker.

● ***Late Bulletin:*** According to NBC's ***Roy Neal, K6DUE,*** the STS-35 shuttle launch of ***Dr. Ron Parise, WA4SIR,*** has been postponed again ...at least a week and maybe more.

AMATEURS REACT TO ARRL DATA PETITION

An ARRL petition for rulemaking (RM-7248) has attracted some strong opposition from the data communications community within Amateur Radio. RM-7248 proposes to change various rules on automatic control and subband allocations for data transmissions.

A committee of influential RTTY, CW, packet and AMTOR operators -- and equipment manufacturers -- around the country has formed. The committee, chaired by ***Dale Sinner/W6IWO*** of RTTY Journal, has the objective of defeating RM-7248 and possibly selecting an alternative approach for proposal to the Commission. The group will meet at Dayton to discuss the matter.

§Part 97 defines automatic control as "the use of devices and procedures for control of a station when it is transmitting so that compliance with the FCC Rules is achieved without the control operator being present at a control point."

Rule §97.109(e) currently prohibits automatic

A certificate (optional) is also available for $1.00. Details and accreditation materials will be sent to you in about two weeks. | making, preparing or distributing amateur radio equipment or license preparation materials. My age is at least 18 years old."

control of an amateur station while transmitting third-party traffic, except for packet stations using the standard AX.25 protocol on the 6 meter and higher bands.

The ARRL asked the FCC to expand this rule to encompass all amateur RTTY and data communications, not just those using AX.25 packet. It also would allow automatic control of third-party traffic on MF and HF frequencies where automatic control is permitted, in addition to VHF and above.

Eliciting the most reaction from amateurs was the League's proposal to allow packet, RTTY and AMTOR to be used under automatic control in limited segments of the HF bands. These segments would be 10 kHz per band below 28 MHz and 20 kHz in 10 meters. "The 20 kHz segment in the 28 MHz band is possible because of the wider band available and the need to provide network entry points for Novice and Technician class operators," ARRL said.

ARRL's proposed 97.219(b) would read:

"An amateur station transmitting RTTY or data communications may be automatically controlled while it is transmitting on the 3.605-3.615 MHz, 7.035-7.045 MHz, 10.140-10.150 MHz, 14.090-14.100 MHz, 18.100-18.110 MHz, 21.090-21.100 MHz, 24.920-24.930 MHz, 28.100-28.120 MHz, or on the 6 m and shorter wavelength bands. Novices may not be control operators of automatically controlled stations transmitting digital communications except on frequencies above 222.1 MHz."

The frequency segments ARRL proposed were based on international band usages and on experience with the SKIPNET special temporary authority (STA) operation, which began in 1987. SKIPNET was a group of HF stations authorized by FCC to study automatic control of packet communications.

The FCC placed Petition RM-7248 on Public Notice in February and invited comments from amateurs. Replies we've reviewed at the FCC are quite negative towards the ARRL proposal. We couldn't find any in support.

"In my view, automatic operation that is also unattended is not in the spirit of Amateur Radio," wrote ***Dean Showalter/WA6PJR*** of Yucaipa, Calif. He noted that the band segments involved are international in scope. "The frequencies to be 'dedicated' are primary DX frequencies world wide. Assigning them to automatic stations in the U.S. will be viewed as an 'ugly American' act...

"The proposal in effect would 'assign' exclusive frequencies to the automatic stations. They do not monitor before transmitting! In fact the STA network depends on exclusive frequencies. They now attempt to obtain these clear frequencies by usurption of whatever other traffic may exist there."

David Eisenberger/K8KEM of Aurora, Ohio told the FCC that "While there is a need for digital communications, trying to force a subband right in the middle of the CW portion of the 40 meter band would be unconscionable. Opening up 7.035 to 7.045 MHz in the 40 meter band to RTTY/AMTOR would totally disrupt CW communications."

The Morse Telegraph Club Inc. (MTC) agreed with this view. "MTC amateurs maintain daily CW schedules on 7.040 MHz. ...We believe there is obvious incompatibility between the CW mode, and that of automatic data transmissions in the same segment of the 40 meter band here under consideration. ...The proposed rule making is so patently unsound that it would be a waste of time and effort for all concerned.

The ARRL said that the band segments it proposed for Rule §97.219 "are optimally positioned relative to amateur usage in the United States and the band plans of all IARU Regions. The League considers these segments to be not only the best 'fit', but also will result in the least disruption of other traditional uses."

The RTTY Journal's Sinner told us that his committee feels that the ARRL should have consulted or polled amateurs who would be affected by the proposed band changes. At a minimum, they believe, ARRL should have publicized the filing of the petition more widely. Other amateurs we talked to suggested that the ARRL filed the petition because the SKIPNET STA was running out (it expired in January 1990) and the net participants wanted to find some other FCC-authorized way to stay on the air.